

FORM PTO-1449/A and B (Modified)

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

APPLICATION NO.: 09/777,725  
CONFIRMATION NO.: 6084

ATTY. DOCKET NO.: 000925/70086

FILING DATE: February 5, 2001

APPLICANT: Timothy M. Swager

GROUP ART UNIT: 1711

EXAMINER: Unassigned

Sheet 1 of 2

## U.S. PATENT DOCUMENTS

Examiner's Initials#	Cite No.	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
M	1	4,839,112	Wynne et al.	06/13/89
	2	4,957,615	Ushizawa et al.	09/18/90
	3	4,992,244	Grate	02/12/91
	4	5,091,502	Narang et al.	02/25/92
	5	5,250,439	Musho et al.	10/05/93
	6	5,312,896	Bhardwaj et al.	05/17/94
	7	5,387,462	Debe	02/07/95
	8	5,493,017	Therien et al.	02/20/96
	9	5,549,851	Fukushima et al.	08/27/96
	10	5,675,001	Hoffman et al.	10/07/97
	11	5,323,309	Taylor et al.	06/21/94
	12	6,020,426	Yamaguchi et al.	02/01/2000
M	13	6,323,309	Swager et al.	11/27/01

## FOREIGN PATENT DOCUMENTS

Examiner's Initials#	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/Country	Number	Kind Code			
M	14	WO	99/57222	A1	Massachusetts Institute of Technology	11/11/1999	
M	15	WO	00/05774	A1	Massachusetts Institute of Technology	02/03/2000	
	16	WO	95/16681	A1	Trustees of University of Pennsylvania	06/22/1995	

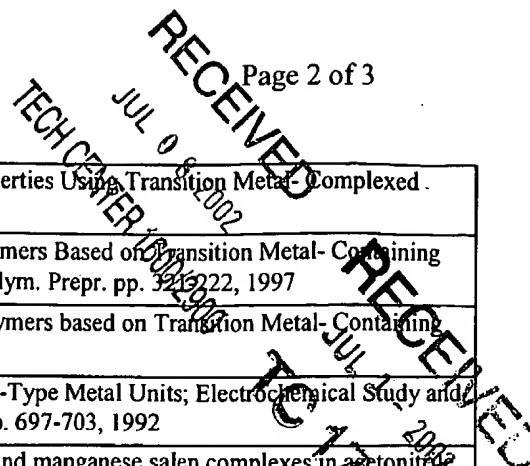
## OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials#	Cite No.	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
M	17	T. Swager, "The Molecular Wire Approach to Sensory Signal Application," Acc. Chem. Res., Vol. 31, pp. 201-207, 1998	
M	18	P. Audebert et al, "Synthesis and Characteristics of New Redox Polymers Based on Copper Containing Units; Evidence for the Participation of Copper in the Electron Transfer Mechanism", New Journal of Chemistry, Vol. 15, No. 4, pp. 235-237, 1991	
M	19	K.A. Goldsby et al., "Oxidation of Nickel(II) Bis(salicylaldehyde) Complexes: Solvent Control of the Ultimate Redox Site", Polyhedron, Vol. 8, No. 1, pp. 113-115, 1989	
M	20	L.A. Hoferkamp and K.A. Goldsby, "Surface-Modified Electrodes Based on Nickel(II) and Copper(II) Bis(salicylaldehyde) Complexes", Chemistry of Materials Vol. 1, No. 3, pp. 348-352, 1989	
M	21	M. Vilas-Boas et al., "New Insights into the Structure and Properties of Electroactive Polymer Films Derived from [Ni(salen)]", Inorganic Chemistry, Vol. 36, No. 22, pp. 4919-4929, 1997	
M	22	C.P. Horwitz and R.W. Murray, "Oxidative Electropolymerization of Metal Schiff-Base Complexes", Mol. Cryst. Liq. Cryst., Vol. 160, pp. 389-404, 1988	

Serial No: 09/777,725  
Conf. No. 6084



Page 2 of 3



M	23	J.L. Reddinger and J.R. Reynolds, "Tunable Redox and Optical Properties Using Transition Metal-Complexed Polythiophenes". <i>Macromolecules</i> , Vol. 30, No. 3 pp. 673-675, 1997
M	24	J.L. Reddinger and J.R. Reynolds, "Electroactive $\pi$ -Conjugated Polymers Based on Transition Metal-Containing Thiophenes Capable of Sensing Ionic and Neutral Species", <i>ACS Polym. Prepr.</i> pp. 321-322, 1997
M	25	J.L. Reddinger and J.R. Reynolds, "Electroactive, $\pi$ -Conjugated Polymers based on Transition Metal-Containing Thiophenes", <i>Synthetic Metals</i> 84, pp. 225-226, 1997
M	26	P. Audebert et al., "Redox and Conducting Polymers Based on Salen-Type Metal Units; Electrochemical Study and Some Characteristics", <i>New Journal of Chemistry</i> , Vol. 16, No. 6, pp. 697-703, 1992
M	27	F. Bedioui et al., "Electrooxidative polymerization of cobalt, nickel and manganese salen complexes in acetonitrile solution", <i>J. Electroanal. Chem.</i> 301, pp. 267-274, 1991
M	28	C.E. Dahm and D.G. Peters, "Catalytic Reduction of Iodoethane and 2-Iodopropane at Carbon Electrodes Coated with Anodically Polymerized Films of Nickel(II) Salen", <i>Analytical Chemistry</i> , Vol. 66, No. 19, pp. 3117-3123, 1994
M	29	K.A. Goldsby, "Symmetric and Unsymmetric Nickel(II) Schiff Base Complexes; Metal-Localized Versus Ligand-Localized Oxidation", <i>J. Coord. Chem.</i> , Vol. 19, pp. 83-90, 1988
M	30	H. Segawa et al., "Approaches to conducting polymer devices with nano-structure: Electrochemical construction of one-dimensional and two-dimensional porphyrin-oligothiophene co-polymers", <i>Synthetic Metals</i> 71, pp. 2151-2154, 1995
M	31	T. Shimidzu et al., "Approaches to conducting polymer devices with nanostructures: photoelectrochemical function of one-dimensional and two-dimensional porphyrin polymers with oligothiophenyl molecular wire", <i>Journal of Photochemistry and Photobiology A: Chemistry</i> 99, Article 4168, pp. 1-7, 1995
M	32	C. Armengaud et al., "Electrochemistry of conducting polypyrrole films containing cobalt porphyrin", <i>J. Electroanal. Chem.</i> , 277, pp. 197-211, 1990
M	33	P. Moisy et al., "Epoxidation of <i>cis</i> -cyclooctene by Molecular Oxygen Electrocatalysed by Polypyrrole-Manganese Porphyrin Film Modified Electrodes", <i>J. Electroanal. Chem.</i> 250, pp. 191-199, 1988
M	34	F. Bedioui et al., "Poly(Pyrrole-Manganese Tetraphenylporphyrin) film Electrodes in Acetonitrile Solution", <i>J. Electroanal. Chem.</i> 239, pp. 433-439, 1988
M	35	A. Bettelheim et al., "Electrochemical Polymerization of Amino-, Pyrrole-, and Hydroxy-Substituted Tetraphenylporphyrins", <i>Inorganic Chemistry</i> , Vol. 26, No. 7, pp. 1009-1017, 1987
M	36	P. Audebert et al., "Description of New Redox and Conducting Polymers Based on Copper Containing Units; Emphasis on the Role of Copper in the Electron Transfer Mechanism", <i>Synthetic Metals</i> 41-43, pp. 3049-3052, 1991
M	37	S.S. Zhu et al., "Conducting Polymetallorotaxanes: A Supramolecular Approach to Transition Metal Ion Sensors", <i>Journal of the American Chemical Society</i> , Vol. 118, No. 36, pp. 8713-8714, 1996
M	38	S.S. Zhu and T.M. Swager, "Design of Conducting Redox Polymers: A Polythiophene-Ru(bipy) <sub>3</sub> <sup>2+</sup> Hybrid Material**", <i>Advanced Materials</i> , Vol. 8, No. 6, pp. 497-500, 1996
M	39	G. Zotti et al., "Conductivity In Redox Modified Conducting Polymers. 2. Enhanced Redox Conductivity in Ferrocene-Substituted Polypyrroles and Polythiophenes", <i>Chem. Mater.</i> Vol. 7, No. 12, pp. 2309-2315, 1995
M	40	C.G. Cameron and P.G. Pickup, "A conjugated polymer/redox polymer hybrid with electronic communication between metal centres", <i>Chem. Commun.</i> , pp. 303-304, 1997
M	41	F. Bedioui et al., "Electrochemistry of conducting polypyrrole films containing cobalt porphyrin, Part 2." New Developments and inclusion of metallic aggregates in the coordination polymer, "J. Electroanal. Chem.", Vol. 297, pp. 257-269, 1991

Mailed 06/19/02

EXAMINER 	DATE CONSIDERED 6/24/04
--------------	----------------------------

#EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.